Amendments to the Specification:

Please replace the paragraph beginning on page 5 with the following amended paragraph:

[027] The cohort data also includes a K-dimensional vector γ_d **292** that is used to weight the explicit preferences of members of that cohort. That is, if a user n has expressed an explicit preference for attribute k of z_{nk}, and user n is in cohort d, then that product $\tilde{z}_{nk} = z_{nk}\gamma_{dk}$ is used by scorer **125** in determining the contribution based on the user's explicit ratings as compared to the contribution based on other estimated parameters, and in determining the relative contribution of explicit preferences for different of the K attributes. Other parameters, including θ_d **296**, η_d **297**, and φ_d **294**, are estimated by state updater **135** and used by scorer **125** in computing a contribution of a user's cohort to the estimated rating. Cohort data **280** also includes a cohort rating or fixed-effect vector $\mathbf{f}$ **298**, whose elements are the expected rating f_{id} of each item i based on the sample histories of the cohort d that "best" represent a typical user of the cohort. Finally, cohort data **280** includes a prior precision matrix $\mathbf{P}_d$ **299**, which characterizes a prior distribution for the estimated user parameters π_i [[**280**]] **260**, which are used by state updater **125** as a starting point of a procedure to personalize parameters to an individual user.

Please replace the paragraph beginning on page 9 with the following amended paragraph:

[053] State updater **135** also includes a Bayesian updater **460** that updates parameters of user data [[**280**]] **250**. In particular, Bayesian updater **460** maintains an estimate $\pi_n = (\alpha_n, \beta_n', \tau_n)'$ **260**, as well as a precision matrix $\mathbf{P}_n$ **268**. The initial values of $\mathbf{P}_n$ and π_n are common to all users of a cohort. The value of π_n is initially zero.

Please replace the paragraph beginning on page 13 with the following amended paragraph:

[079] In order to reduce the data in the text fields, for each higher-level cluster C, each of the words in the vocabulary is categories into one of a set of discrete (generally overlapping) categories according to the utility of the word in discriminating between membership in that category versus membership in some other category (i.e., a 2-class analysis for each cluster). The words are categorized as "weak," "medium," or "strong." The categorization is determined

by estimating parameters of a logistic function whose inputs are counts for each of the words in the vocabulary occurring in each of the text fields for an item, and the output is the probability of belonging to the cluster. Strong words are identified by corresponding coefficients in the logistic regression having large (absolute) values, and medium and weak words are identified by corresponding coefficients having values in lower ranges. Alternatively, a jackknife procedure is used to assess the strength of the words. Judgments of the editors are also incorporated, for example, by adding or deleting ~~works~~ words or changing the strength of particular words.

Please replace the paragraph beginning on page 14 with the following amended paragraph:

[081] The same approach is repeated independently to compute $\Pr(\text{cluster } c \mid \text{cluster C, input } i)$ for each of the clusters C. That is, this procedure for mapping the input words to a fixed number of features is repeated for each of the specific clusters, with different ~~with different~~ categorization of the words for each of the higher-level clusters. With C higher-level clusters, an additional C multinomial logistic regression function are determined to compute the probabilities $\Pr(\text{cluster } c \mid \text{cluster C, input } i)$.

Please replace the paragraph beginning on page 14 with the following amended paragraph:

[085] A first function relates to the difference in ranges of ratings that different users may give. For example, one user may consistently rate items higher or lower than another. That is, their average rating, or their rating on a standard set of items may differ significantly from ~~than for~~ that of other users. A user may also use a wider or narrower range of rating than other users. That is, the variance of their ratings or the sample variance of a standard set of items may differ significantly from other users.